

# PATENT ABSTRACTS OF JAPAN

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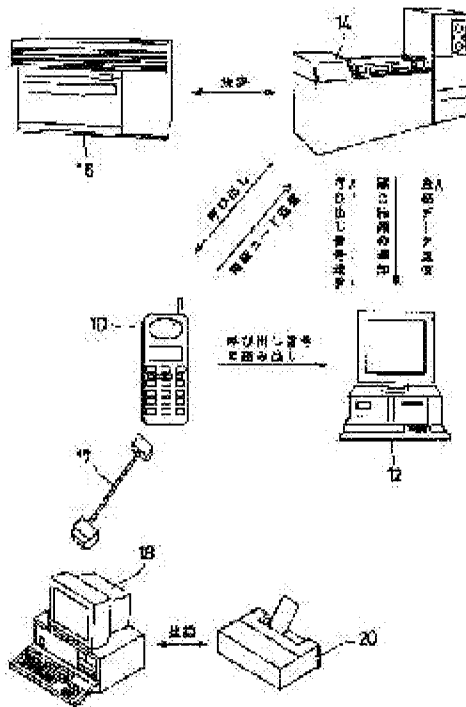
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(22)Date of filing : **29.07.1997** (72)Inventor : **ISAKA ISAO**

### (54) INDIVIDUAL CONFIRMATION SYSTEM



(57)Abstract:

**PROBLEM TO BE SOLVED:** To provide an individual confirmation system which can perform sure individual confirmation and integrate various card functions.

**SOLUTION:** A call number stored in a portable communication device 10 is read out by a terminal device 12 and sent to a computer 14. The computer 14 calls the portable communication device 10 and sends a guidance for input of a password code. A password code is sent from the portable communication device 10 to the computer 14 and matches against the previously registered password code. After the individual is identified by the matching, the amount of money for a purchase is inputted to the terminal device 12 and sent to the computer 14. The money for the purchase is settled with the bank account 16. Data stored in the computer 14 can be taken out by connecting the personal computer 18 to a

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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**CLAIMS**

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[Claim(s)]

[Claim 1] The pocket transmitter which has the storage means which memorized the call number for calling self, The terminal which has the read-out means and means of communications for reading said call number from said storage means, And the computer which associated and memorized said call number and password code of the owner of said pocket transmitter is included. After reading appearance of said call number memorized by said storage means of said pocket transmitter with the aforementioned read-out means of said terminal is carried out, said call number is transmitted to said computer from said terminal. Said pocket transmitter is called from said computer by said call number. It collates with said password code memorized by relating with said call number in said computer by transmitting a password code to said computer from said pocket transmitter. The individual check system by which the result with which said password code was collated by said computer is transmitted to said terminal.

[Claim 2] The individual check system according to claim 1 by which amount-of-money data are inputted into said terminal, and said amount-of-money data are transmitted to said computer from said terminal corresponding to said password code memorized by said computer and said password code transmitted from said pocket transmitter having been in agreement.

[Claim 3] The individual check system according to claim 1 by which transfer of cash is performed in said terminal, and the amount-of-money data accompanying transfer of said

cash are transmitted to said computer from said terminal corresponding to said password code memorized by said computer and said password code transmitted from said pocket transmitter having been in agreement.

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## DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the various individual check systems performed with the card of a credit card, an ATM card, and others until now especially about an individual check system, for example.

[0002]

[Description of the Prior Art] Until now, the individual check was performed by various kinds of cards, such as an ATM card and a credit card. In this case, by registration of a customer's bank account, registration of an address, registration of a personal identification number, etc., the card operating company assigned the number according to customer, and has published the card. And for example, when doing some shopping using a credit card, by presentation of a card, and the sign of a principal's name, an individual check is performed and shopping is completed. The price of shopping is charged directly to a customer's bank account after it, and settlement of shopping is completed.

[0003] Moreover, in the case of an ATM card, by inserting a card in the terminal of a bank and inputting a personal identification number into a terminal, the personal identification number recorded on the card and the personal identification number inputted into the terminal are collated, and an individual check is performed. It can perform the drawer of cash, or transfer by a customer's account. Furthermore, in the case of a prepaid card, the function of cash is added to a card and it can use within the limits of the set-up amount of money as a substitute of cash.

[0004]

[Problem(s) to be Solved by the Invention] Although the individual check in these cards is mainly performed by the personal identification number, the sign, etc., the check is imperfect from the criminal situation of these days. For example, a personal identification number tends to set up the individual telephone number, an individual date of birth, etc., and tends to have a personal identification number detected by others. Furthermore, record of the present personal identification number is used as the magnetic stripe formed in the card in many cases, and can also read the information recorded on the magnetic stripe. Moreover, although the sign when carrying out the sign and shopping which were indicated by the card is collated, the employee of a store will pass a check simply by imitating a hand so that it may become the well alike sign instead of the expert of handwriting analysis.

[0005] Furthermore, there are many issuers, such as a credit card, an ATM card, and a prepaid card, if it is going to use these, it is necessary to also carry many cards by one person, and management of a card will become complicated. Moreover, when you have noticed the unauthorized use of a card, or even when it judges that there is the possibility, the time amount for one month will pass since several for the cure, and it will lead to amplification of damage between them.

[0006] So, the main object of this invention is offering the individual check system which

can ensure an individual check and can unify the function of various kinds of cards.

[0007]

[Means for Solving the Problem] The pocket transmitter which has the storage means which memorized the call number for this invention to call self, The terminal which has the read-out means and means of communications for calling from a storage means and reading a number, The computer which associated and memorized the call number and the password code of the owner of a pocket transmitter is included. After [ which was memorized by the storage means of a pocket transmitter with the read-out means of a terminal ] calling and carrying out reading appearance of the number, call to a computer from a terminal and a number is transmitted. A pocket transmitter is called from a computer by the call number, and by transmitting a password code to a computer from a pocket transmitter, call in a computer and it collates with the password code memorized by relating with a number. The result with which the password code was collated by computer is the individual check system transmitted to a terminal. In this individual check system, corresponding to the password code memorized by the computer and the password code transmitted from the pocket transmitter having been in agreement, amount-of-money data are inputted into a terminal, and amount-of-money data may be made to be transmitted to a computer from a terminal. Moreover, corresponding to the password code memorized by the computer and the password code transmitted from the pocket transmitter having been in agreement, transfer of cash is performed in a terminal and the amount-of-money data accompanying transfer of cash may be made to be transmitted to a computer from a terminal.

[0008] The check of a password code is taken between a computer and an individual by [ which were memorized by the pocket transmitter ] calling, reading a number at a terminal and calling the pocket transmitter from a computer. Since it collates with the personal identification number memorized by the computer by inputting a password code from a pocket transmitter at this time, it is not necessary to store a password code in a pocket transmitter. Therefore, others are unable to get to know a password code from a pocket transmitter.

[0009] As a terminal, it can consider as the terminal for an individual check installed in each store, and in this case, the amount of money of shopping is inputted into a terminal, and is transmitted to a computer. Moreover, as a terminal, it is good also as a cash making a deposit payment machine in a bank etc., and the amount-of-money data of transfer of cash are transmitted to a computer in this case.

[0010] The above-mentioned object of this invention, the other objects, the description, and an advantage will become still clearer from the detailed explanation of the following examples given with reference to a drawing.

[0011]

[Embodiment of the Invention] Drawing 1 is illustration drawing showing the example which does some shopping using the individual check system of this invention. Those who do some shopping are carrying the pocket transmitters 10, such as a cellular phone. The memory as a storage means etc. is built in the pocket transmitter 10, and the call number for calling the pocket transmitter 10 to this memory is memorized.

[0012] Moreover, the terminal 12 for performing an individual check is installed in each store. A terminal 12 has means of communications and can communicate with the computer 14 which generalizes an individual check system. In addition, wireless does not

need to perform this means of communications and it can be performed through the communication line of a cable. This computer 14 is installed in a card operating company etc. Moreover, a terminal 12 has a read-out means for [ which calls and reads a number ] the memory of the pocket transmitter 10 having memorized.

[0013] Furthermore, the call number and password code of a pocket transmitter according to individual are memorized by the computer 14 in the condition of having been related. As a password code, it is numerically good also as a personal identification number, and a password code may be created combining the alphabet, a notation, etc. Thus, the combination increases, and decode of a password code becomes difficult and it can raise safety, so that the figure for creating a password code and the number of notations increase.

[0014] When some shopping is done at a certain store, the pocket transmitter 10 and the terminal 12 of a store are connected. The terminal for connection formed in the pocket transmitter and the terminal for connection formed in the electrode holder should just be connected by setting the pocket transmitter 10 to this electrode holder as the approach of connection, for example using the electrode holder for holding the pocket transmitter 10. And an electrode holder is connected to a terminal 12 and the pocket transmitter 10 and a terminal 12 are connected through an electrode holder.

[0015] Connection of the pocket transmitter 10 and a terminal 12 carries out reading appearance of the call number memorized by the memory of the pocket transmitter 10 with the terminal 12. This call number is transmitted to a computer 14 through a communication line. A computer 14 calls the sent pocket transmitter 10 of the person who called and did some shopping based on the number. If a call is answered, it will show around from a computer 14 so that a password code may be inputted. If a password code is inputted into the pocket transmitter 10 according to advice of a computer 14, the password code will be transmitted to a computer 14. Since the password code of the call number and owner of the pocket transmitter 10 is associated and registered beforehand, the inputted password code and the registered password code are collated with a computer 14. And if these password codes are in agreement, the owner of the pocket transmitter 10 will judge that he is a principal, and that will be notified to a terminal 12. At a terminal 14, after the owner of the pocket transmitter 10 checks that he is a principal, the amount of money of shopping is inputted. At this time, the amount of money into which the owner of the pocket transmitter 10 was inputted should just check whether it is the right.

[0016] At the store which did some shopping, payment of the price of shopping is received from a card operating company. And in a card operating company, the inputted amount of money is pulled down from the bank account 16 of the owner of the pocket transmitter 10, and settlement of shopping is completed. Of course, it is free like an old credit card to give various facilities, such as a lump sum payment and payment in installments, to a user next month.

[0017] Since the situation of shopping etc. is recorded on a computer 14, a user is able to acquire information from a computer 14 by connecting a personal computer 18 to the pocket transmitter 10 by the connecting cord 17 etc. Furthermore, if a printer 20 etc. is connected to a personal computer 18, the information acquired from the computer 14 can also be printed.

[0018] Moreover, drawing 2 is illustration drawing showing the case where the individual

check system of this invention is used for the automatic making a deposit payment machine of a bank. Here, a depositor sets the pocket transmitter 10 to the terminal 12 which is an automatic making a deposit payment machine. With a terminal 12, reading appearance of the call number memorized by the memory of the pocket transmitter 10 is carried out, and the call number is transmitted to a computer 14. From a computer 14, based on the call number, a depositor's pocket transmitter 10 is called, and it shows around so that a password code may be inputted. A depositor inputs a password code into the pocket transmitter 10 according to advice. The inputted password code is transmitted to a computer 14. By computer 14, the sent password code and the password code registered beforehand are collated, and it is checked whether you are a principal. If it is checked that he is a principal, the result will be notified to a terminal 12 and making a deposit or payment of cash of it etc. will become possible. Then, a depositor can perform the receipt of cash etc. by inputting the amount of money into a terminal 12. Of course, it is also possible to perform making a deposit, transfer, etc. of cash.

[0019] Such utilization information is accumulated in a computer 14. Therefore, a depositor can connect a personal computer 18 to a communication line, and can pull out utilization information from a computer 14. Furthermore, utilization information can be printed if a printer 20 etc. is connected to a personal computer 18. Thereby, it can use as an individual housekeeping book etc.

[0020] Drawing 3 is illustration drawing showing the example which gave the prepaid card function to the pocket transmitter 10 used for the individual check system of this invention. In this case, the memory which records the amount of money as data is built in the pocket transmitter 10. When doing some shopping using this pocket transmitter 10, the pocket transmitter 10 is set to the terminal 12 installed in the store. A terminal 12 reads amount-of-money data from the memory of the pocket transmitter 10, and the price of shopping is deducted from the amount-of-money data. And the amount-of-money data with which the price of shopping was reduced are written in the memory of the pocket transmitter 10. Therefore, next time, some shopping can be done within the limits of the reduced amount of money.

[0021] In addition, amount-of-money data are recorded on the memory of the pocket transmitter 10, and a legal seal registration certificate, an individual ID card, an individual member card, a license, a passport, the insurance certificate not only of using as a prepaid card but this individual check system, etc. are available in a card business at large.

[0022] In this individual check system, the call number of an individual's pocket transmitter 10 and an individual's password code are associated and memorized by the computer 14. And when the call number of the pocket transmitter 10 has been sent from the terminal 12, a principal is called and a principal inputs a password code into the pocket transmitter 10. Since the inputted password code is collated with the password code recorded on the computer 14, it is not necessary to record a password code on the pocket transmitter 10. Therefore, even if the pocket transmitter 10 is stolen, there is no possibility that a password code may be known from there.

[0023] And with the conventional credit card, although the sign etc. was performing the individual check at each store, if the individual check system of this invention is used, by computer 14 in a computer pin center, large etc., the pocket transmitter 10 can be called, a direct individual check can be performed, and safety can be secured to crimes, such as

forgery, an alteration, and unjust utilization.

[0024] Moreover, if this individual check system is used, the card function of a credit card, an ATM card, a prepaid card, and others can be given to one pocket transmitter 10, and filing integration of various card functions can be aimed at.

[0025]

[Effect of the Invention] Since it can check by calling a principal according to this invention, it can have high safety and an individual check can be ensured. Moreover, filing integration of various kinds of card functions can be aimed at.

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## TECHNICAL FIELD

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[Field of the Invention] This invention relates to the various individual check systems performed with the card of a credit card, an ATM card, and others until now especially about an individual check system, for example.

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## PRIOR ART

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[Description of the Prior Art] Until now, the individual check was performed by various kinds of cards, such as an ATM card and a credit card. In this case, by registration of a customer's bank account, registration of an address, registration of a personal identification number, etc., the card operating company assigned the number according to customer, and has published the card. And for example, when doing some shopping using a credit card, by presentation of a card, and the sign of a principal's name, an individual check is performed and shopping is completed. The price of shopping is charged directly to a customer's bank account after it, and settlement of shopping is completed.

[0003] Moreover, in the case of an ATM card, by inserting a card in the terminal of a bank and inputting a personal identification number into a terminal, the personal identification number recorded on the card and the personal identification number inputted into the terminal are collated, and an individual check is performed. It can perform the drawer of cash, or transfer by a customer's account. Furthermore, in the case of a prepaid card, the function of cash is added to a card and it can use within the limits of the set-up amount of money as a substitute of cash.

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## EFFECT OF THE INVENTION

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[Effect of the Invention] Since it can check by calling a principal according to this invention, it can have high safety and an individual check can be ensured. Moreover, filing integration of various kinds of card functions can be aimed at.

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## TECHNICAL PROBLEM

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[Problem(s) to be Solved by the Invention] Although the individual check in these cards is mainly performed by the personal identification number, the sign, etc., the check is imperfect from the criminal situation of these days. For example, a personal identification number tends to set up the individual telephone number, an individual date of birth, etc., and tends to have a personal identification number detected by others. Furthermore,

record of the present personal identification number is used as the magnetic stripe formed in the card in many cases, and can also read the information recorded on the magnetic stripe. Moreover, although the sign when carrying out the sign and shopping which were indicated by the card is collated, the employee of a store will pass a check simply by imitating a hand so that it may become the well alike sign instead of the expert of handwriting analysis.

[0005] Furthermore, there are many issuers, such as a credit card, an ATM card, and a prepaid card, if it is going to use these, it is necessary to also carry many cards by one person, and management of a card will become complicated. Moreover, when you have noticed the unauthorized use of a card, or even when it judges that there is the possibility, the time amount for one month will pass since several for the cure, and it will lead to amplification of damage between them.

[0006] So, the main object of this invention is offering the individual check system which can ensure an individual check and can unify the function of various kinds of cards.

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## MEANS

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[Means for Solving the Problem] The pocket transmitter which has the storage means which memorized the call number for this invention to call self, The terminal which has the read-out means and means of communications for calling from a storage means and reading a number, The computer which associated and memorized the call number and the password code of the owner of a pocket transmitter is included. After [ which was memorized by the storage means of a pocket transmitter with the read-out means of a terminal ] calling and carrying out reading appearance of the number, call to a computer from a terminal and a number is transmitted. A pocket transmitter is called from a computer by the call number, and by transmitting a password code to a computer from a pocket transmitter, call in a computer and it collates with the password code memorized by relating with a number. The result with which the password code was collated by computer is the individual check system transmitted to a terminal. In this individual check system, corresponding to the password code memorized by the computer and the password code transmitted from the pocket transmitter having been in agreement, amount-of-money data are inputted into a terminal, and amount-of-money data may be made to be transmitted to a computer from a terminal. Moreover, corresponding to the password code memorized by the computer and the password code transmitted from the pocket transmitter having been in agreement, transfer of cash is performed in a terminal and the amount-of-money data accompanying transfer of cash may be made to be transmitted to a computer from a terminal.

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[0018] Moreover, drawing 2 is illustration drawing showing the case where the individual check system of this invention is used for the automatic making a deposit payment machine of a bank. Here, a depositor sets the pocket transmitter 10 to the terminal 12 which is an automatic making a deposit payment machine. With a terminal 12, reading appearance of the call number memorized by the memory of the pocket transmitter 10 is carried out, and the call number is transmitted to a computer 14. From a computer 14, based on the call number, a depositor's pocket transmitter 10 is called, and it shows around so that a password code may be inputted. A depositor inputs a password code into the pocket transmitter 10 according to advice. The inputted password code is transmitted to a computer 14. By computer 14, the sent password code and the password code registered beforehand are collated, and it is checked whether you are a principal. If it is checked that he is a principal, the result will be notified to a terminal 12 and making a deposit or payment of cash of it etc. will become possible. Then, a depositor can perform the receipt of cash etc. by inputting the amount of money into a terminal 12. Of course, it is also possible to perform making a deposit, transfer, etc. of cash.

[0019] Such utilization information is accumulated in a computer 14. Therefore, a depositor can connect a personal computer 18 to a communication line, and can pull out utilization information from a computer 14. Furthermore, utilization information can be printed if a printer 20 etc. is connected to a personal computer 18. Thereby, it can use as an individual housekeeping book etc.

[0020] Drawing 3 is illustration drawing showing the example which gave the prepaid card function to the pocket transmitter 10 used for the individual check system of this invention. In this case, the memory which records the amount of money as data is built in the pocket transmitter 10. When doing some shopping using this pocket transmitter 10, the pocket transmitter 10 is set to the terminal 12 installed in the store. A terminal 12 reads amount-of-money data from the memory of the pocket transmitter 10, and the price of shopping is deducted from the amount-of-money data. And the amount-of-money data with which the price of shopping was reduced are written in the memory of the pocket transmitter 10. Therefore, next time, some shopping can be done within the limits of the reduced amount of money.

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[0024] Moreover, if this individual check system is used, the card function of a credit card, an ATM card, a prepaid card, and others can be given to one pocket transmitter 10, and filing integration of various card functions can be aimed at.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] It is illustration drawing showing the example using the individual check system of this invention as a credit card.

[Drawing 2] It is illustration drawing showing the example using the individual check system of this invention as an ATM card.

[Drawing 3] It is illustration drawing showing the example using the individual check system of this invention as a prepaid card.

[Description of Notations]

10 Pocket Transmitter

12 Terminal

14 Computer

16 Bank Account

17 Connecting Cord

18 Personal Computer

20 Printer

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[Translation done.]

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3 6 0

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(71) 出願人 597115783

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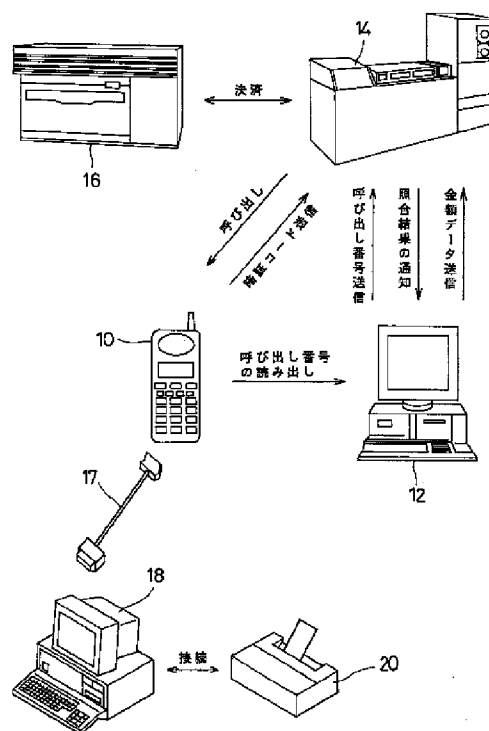
(74) 代理人 弁理士 岡田 全啓

(54) 【発明の名称】 個人確認システム

(57) 【要約】

【課題】 確実に個人確認を行うことができ、各種のカード機能を統一することができる個人確認システムを得る。

【解決手段】 携帯通信機10に記憶された呼び出し番号を、端末機12で読み出し、コンピュータ14に送信する。コンピュータ14は携帯通信機10を呼び出し、暗証コードを入力するように案内する。携帯通信機10から暗証コードをコンピュータ14に送信し、予め登録された暗証コードと照合する。照合の結果、本人であることを確認したのち、買い物の金額を端末機12に入力し、コンピュータ14に送信する。買い物の代金は、銀行口座16において決済する。コンピュータ14に蓄積されたデータは、パーソナルコンピュータ18を通信回線に接続して、取り出すことができる。このシステムは、キャッシュカードその他のカード機能に応用することができる。



#### 【特許請求の範囲】

【請求項1】 自己を呼び出すための呼び出し番号を記憶した記憶手段を有する携帯通信機、  
前記記憶手段から前記呼び出し番号を読み出すための読出手段と通信手段とを有する端末機、および前記呼び出し番号と前記携帯通信機の持ち主の暗証コードとを関連付けて記憶したコンピュータを含み、  
前記端末機の前記読出手段によって前記携帯通信機の前記記憶手段に記憶された前記呼び出し番号が読み出されたのち前記端末機から前記コンピュータに前記呼び出し番号が送信され、  
前記呼び出し番号によって前記コンピュータから前記携帯通信機が呼び出され、  
前記携帯通信機から暗証コードを前記コンピュータに送信することにより前記コンピュータにおいて前記呼び出し番号と関連付けて記憶された前記暗証コードと照合され、  
前記コンピュータで前記暗証コードが照合された結果が前記端末機に送信される、個人確認システム。

【請求項2】 前記コンピュータに記憶された前記暗証コードと前記携帯通信機から送信された前記暗証コードとが一致したことに対応して、前記端末機に金額データが入力され、前記端末機から前記金額データが前記コンピュータに送信される、請求項1に記載の個人確認システム。

【請求項3】 前記コンピュータに記憶された前記暗証コードと前記携帯通信機から送信された前記暗証コードとが一致したことに対応して、前記端末機において現金の授受が行われ、前記現金の授受に伴う金額データが前記端末機から前記コンピュータに送信される、請求項1に記載の個人確認システム。

#### 【発明の詳細な説明】

##### 【0001】

【発明の属する技術分野】この発明は個人確認システムに関し、特にたとえば、これまでクレジットカード、キャッシュカードその他のカードで行われていた種々の個人確認システムに関する。

##### 【0002】

【従来の技術】これまで、個人確認は、キャッシュカードやクレジットカードなどの各種のカードで行われていた。この場合、カード運用会社は、顧客の預金口座の登録、住所の登録、暗証番号の登録などによって、顧客別の番号を割り振ってカードを発行している。そして、たとえば、クレジットカードを用いて買い物をするとき、カードの提示と本人の氏名のサインによって個人確認が行われ、買い物が終了する。そののち、顧客の預金口座から買い物の代金が引き落とされて、買い物の決済が終了する。

【0003】また、キャッシュカードの場合、銀行の端末機にカードを挿入し、暗証番号を端末機に入力するこ

とにより、カードに記録された暗証番号と端末機に入力された暗証番号とが照合され、個人確認が行われる。それによって、顧客の口座で、現金の引き出しまたは振り込みなどを行うことができる。さらに、プリペイドカードの場合、カードに現金の機能が付加され、設定された金額の範囲内において、現金の代わりとして利用できるものである。

##### 【0004】

【発明が解決しようとする課題】これらのカードにおける個人確認は、主として暗証番号やサインなどによって行われているが、昨今の犯罪状況から、その確認は不完全なものとなっている。たとえば、暗証番号は個人の電話番号や生年月日などを設定する傾向にあり、他人に暗証番号を見破られやすい。さらに、現在の暗証番号の記録は、カードに形成された磁気ストライプにされている場合が多く、磁気ストライプに記録された情報を読み取ることもできる。また、カードに記載されたサインと買い物をしたときのサインとが照合されるが、店舗の従業員は筆跡鑑定の専門家ではなく、よく似たサインとなるように筆跡を真似ることにより、簡単にチェックを通過してしまう。

【0005】さらに、クレジットカード、キャッシュカード、プリペイドカードなどの発行会社の数は多く、これらを利用しようとするれば、1人で何枚ものカードを携帯する必要がある、カードの管理が煩雑となる。また、カードの不正使用に気がついたとき、またはその可能性があると判断したときでも、その対策に数日から1か月の時間が経過してしまい、その間に被害の拡大につながることになる。

【0006】それゆえに、この発明の主たる目的は、確実に個人確認を行うことができ、各種のカードの機能を統一することができる個人確認システムを提供することである。

##### 【0007】

【課題を解決するための手段】この発明は、自己を呼び出すための呼び出し番号を記憶した記憶手段を有する携帯通信機と、記憶手段から呼び出し番号を読み出すための読出手段と通信手段とを有する端末機と、呼び出し番号と携帯通信機の持ち主の暗証コードとを関連付けて記憶したコンピュータとを含み、端末機の読出手段によって携帯通信機の記憶手段に記憶された呼び出し番号が読み出されたのち端末機からコンピュータに呼び出し番号が送信され、呼び出し番号によってコンピュータから携帯通信機が呼び出され、携帯通信機から暗証コードをコンピュータに送信することによりコンピュータにおいて呼び出し番号と関連付けて記憶された暗証コードと照合され、コンピュータで暗証コードが照合された結果が端末機に送信される、個人確認システムである。この個人確認システムにおいて、コンピュータに記憶された暗証コードと携帯通信機から送信された暗証コードとが一致

したことに対応して、端末機に金額データが入力され、端末機から金額データがコンピュータに送信されるようにしてもよい。また、コンピュータに記憶された暗証コードと携帯通信機から送信された暗証コードとが一致したことに対応して、端末機において現金の授受が行われ、現金の授受に伴う金額データが端末機からコンピュータに送信されるようにしてもよい。

【0008】携帯通信機に記憶された呼び出し番号が端末機で読み取られ、コンピュータからその携帯通信機が呼び出されることにより、コンピュータと個人との間で暗証コードの確認がとられる。このとき、携帯通信機から暗証コードを入力することにより、コンピュータに記憶された暗証番号と照合されるため、携帯通信機に暗証コードを記憶しておく必要がない。そのため、他人が携帯通信機から暗証コードを知ることとは不可能である。

【0009】端末機としては、各店舗に設置される個人確認用の端末機とすることができ、この場合、買い物の金額が端末機に入力されて、コンピュータに送信される。また、端末機としては、銀行における現金預入支払機などとしてもよく、この場合、現金の授受の金額データがコンピュータに送信される。

【0010】この発明の上述の目的、その他の目的、特徴および利点は、図面を参照して行う以下の実施例の詳細な説明から一層明らかとなろう。

#### 【0011】

【発明の実施の形態】図1は、この発明の個人確認システムを利用して買い物をする例を示す図解図である。買い物をする人は、携帯電話などの携帯通信機10を携帯している。携帯通信機10には、記憶手段としてのメモリなどが内蔵され、このメモリに携帯通信機10を呼び出すための呼び出し番号が記憶される。

【0012】また、各店舗には、個人確認を行うための端末機12が設置される。端末機12は、通信手段を有し、個人確認システムを統括するコンピュータ14と通信を行うことができる。なお、この通信手段は、無線によって行う必要はなく、有線の通信回線を通じて行うことができる。このコンピュータ14は、カード運用会社などに設置される。また、端末機12は、携帯通信機10のメモリに記憶された呼び出し番号を読みだすための読出手段を有する。

【0013】さらに、コンピュータ14には、各個人別の携帯通信機の呼び出し番号と暗証コードとが、関連付けられた状態で記憶されている。暗証コードとしては、数字のみで暗証番号としてもよいし、アルファベットや記号などと組み合わせて、暗証コードを作成してもよい。このように、暗証コードを作成するための数字や記号の数が多くなるほど、その組み合わせは多くなって暗証コードの解読は困難となり、安全性を高めることができる。

【0014】ある店舗で買い物をしたとき、携帯通信機

10と店舗の端末機12とが接続される。接続の方法としては、たとえば、携帯通信機10を保持するためのホルダーを用い、このホルダーに携帯通信機10をセットすることにより、携帯通信機に形成された接続用端子とホルダー内に形成された接続用端子とが接続されるようにすればよい。そして、ホルダーが端末機12に接続され、ホルダーを介して、携帯通信機10と端末機12とが接続される。

【0015】携帯通信機10と端末機12とが接続されると、端末機12によって携帯通信機10のメモリに記憶された呼び出し番号が読み出される。この呼び出し番号が、通信回線を介して、コンピュータ14に送信される。コンピュータ14は、送られてきた呼び出し番号に基づいて、買い物をした人の携帯通信機10を呼び出す。呼び出しに应答すると、コンピュータ14から、暗証コードを入力するように案内される。コンピュータ14の案内にしたがって、携帯通信機10に暗証コードを入力すると、その暗証コードはコンピュータ14に送信される。コンピュータ14には、予めその携帯通信機10の呼び出し番号とその所有者の暗証コードが関連付けられて登録されているため、入力された暗証コードと登録された暗証コードとが照合される。そして、これらの暗証コードが一致すれば、その携帯通信機10の所有者が本人であると判断し、端末機12にその旨が通知される。端末機14では、携帯通信機10の所有者が本人であることを確認したのち、買い物の金額が入力される。このとき、携帯通信機10の所有者は、入力された金額が正しいかどうかを確認すればよい。

【0016】買い物をした店舗では、カード運用会社から買い物の代金の支払いを受ける。そして、カード運用会社では、入力された金額を携帯通信機10の所有者の銀行口座16から引き落とし、買い物の決済が終了する。もちろん、これまでのクレジットカードと同様に、利用者に翌月一括払いや分割払いなどの種々の便宜を図ることは自由である。

【0017】コンピュータ14には、買い物の状況などが記録されるため、接続コード17によってパーソナルコンピュータ18を携帯通信機10に接続することなどにより、利用者がコンピュータ14から情報を得ることも可能である。さらに、パーソナルコンピュータ18にプリンタ20などを接続すれば、コンピュータ14から得た情報を印刷することもできる。

【0018】また、図2は、この発明の個人確認システムを銀行の自動預入支払機に利用する場合を示す図解図である。ここで、預金者は、自動預入支払機である端末機12に携帯通信機10をセットする。端末機12によって、携帯通信機10のメモリに記憶された呼び出し番号が読み出され、その呼び出し番号がコンピュータ14に送信される。コンピュータ14からは、その呼び出し番号に基づいて、預金者の携帯通信機10が呼び出さ

れ、暗証コードを入力するように案内される。預金者は、案内にしたがって、携帯通信機10に暗証コードを入力する。入力された暗証コードは、コンピュータ14に送信される。コンピュータ14では、送られてきた暗証コードと予め登録された暗証コードとが照合され、本人であるかどうかを確認される。本人であることが確認されると、その結果が端末機12に通知され、現金の預入または支払いなどが可能となる。そこで、預金者は、端末機12に金額を入力することにより、現金の受取りなどを行うことができる。もちろん、現金の預入れや振り込みなどを行うことも可能である。

【0019】このような利用情報は、コンピュータ14に蓄積される。したがって、預金者が、パーソナルコンピュータ18を通信回線に接続し、コンピュータ14から利用情報を引き出すことができる。さらに、パーソナルコンピュータ18にプリンタ20などを接続すれば、利用情報を印刷することができる。それにより、個人の家計簿などとして利用することができる。

【0020】図3は、この発明の個人確認システムに用いられる携帯通信機10にプリペイドカード機能を持たせた例を示す図解図である。この場合、携帯通信機10には、金額をデータとして記録するメモリが内蔵されている。この携帯通信機10を用いて買い物をするとき、店舗に設置された端末機12に携帯通信機10がセットされる。端末機12は、携帯通信機10のメモリから金額データを読み出し、その金額データから買い物の代金が差し引かれる。そして、買い物の代金が減額された金額データが、携帯通信機10のメモリに書き込まれる。したがって、次回には、その減額された金額の範囲内で、買い物をすることができる。

【0021】なお、携帯通信機10のメモリに金額データを記録してプリペイドカードとして用いるだけでなく、この個人確認システムは、実印登録証、個人IDカード、個別会員カード、免許証、パスポート、保険証など、カード事業全般に利用可能である。

【0022】この個人確認システムでは、コンピュータ14に、各個人の携帯通信機10の呼び出し番号と各個人の暗証コードとが、関連付けられて記憶されている。そして、端末機12から携帯通信機10の呼び出し番号

が送られてきたとき、本人を呼び出して、本人が携帯通信機10に暗証コードを入力する。入力された暗証コードが、コンピュータ14に記録された暗証コードと照合されるため、携帯通信機10に暗証コードを記録しておく必要がない。そのため、携帯通信機10が盗まれたとしても、そこから暗証コードを知られる恐れはない。

【0023】しかも、従来のクレジットカードなどでは、各店舗においてサインなどによって個人確認を行っていたが、この発明の個人確認システムを用いれば、コンピュータセンターなどにあるコンピュータ14によって、携帯通信機10を呼び出し、直接個人確認を行うことができ、偽造、改竄、不正利用などの犯罪に対して、安全性を確保することができる。

【0024】また、この個人確認システムを用いれば、クレジットカード、キャッシュカード、プリペイドカードその他のカード機能を1つの携帯通信機10に持たせることができ、各種カード機能の整理統合を図ることができる。

#### 【0025】

【発明の効果】この発明によれば、本人を呼び出して確認をすることができるため、高い安全性をもって、確実に個人確認を行うことができる。また、各種のカード機能の整理統合を図ることができる。

#### 【図面の簡単な説明】

【図1】この発明の個人確認システムをクレジットカードとして用いる例を示す図解図である。

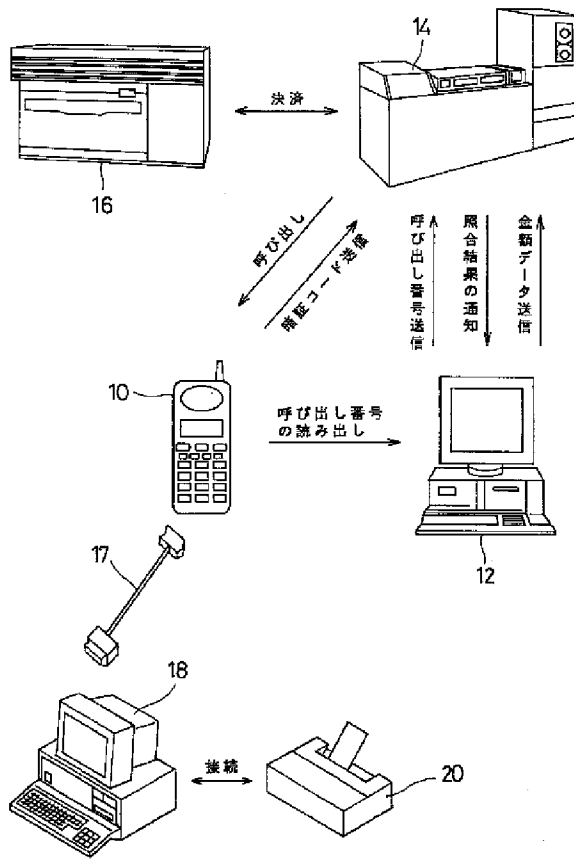
【図2】この発明の個人確認システムをキャッシュカードとして用いる例を示す図解図である。

【図3】この発明の個人確認システムをプリペイドカードとして用いる例を示す図解図である。

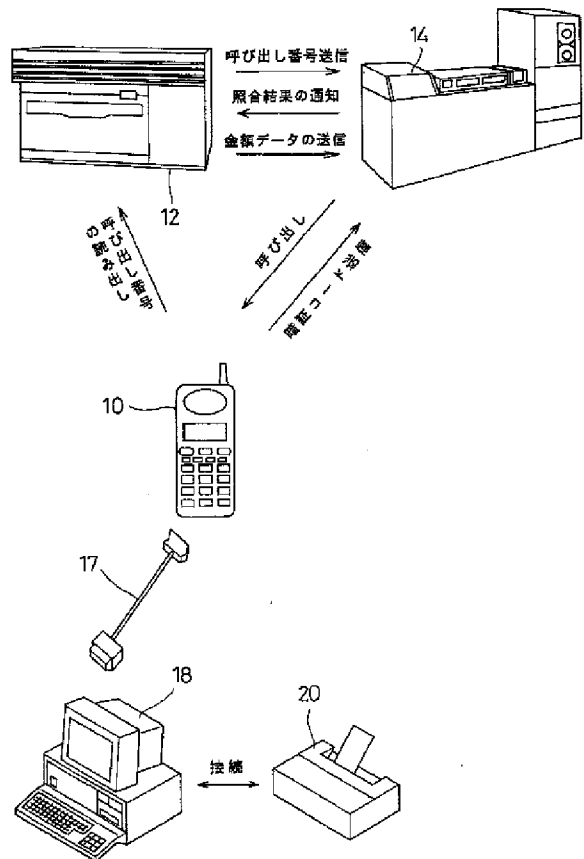
#### 【符号の説明】

- 10 携帯通信機
- 12 端末機
- 14 コンピュータ
- 16 銀行口座
- 17 接続コード
- 18 パーソナルコンピュータ
- 20 プリンタ

【図 1】



【図 2】



【図 3】

